the Fish has favoured it in the 'struggle for existence,' and enabled it to maintain a position nearer the commissariat with less danger to itself than did its forefathers."

Illustrated Guide to the Fish, Amphibian, Reptilian, and supposed Mammalian Remains of the Northumberland Carboniferous Strata. By T. P. Barkas, F.G.S. 8vo, pp. 117; and Atlas of Carboniferous Fossils from the Northumberland Carboniferous Strata, folio, 10 plates. Hutchins: London, 1873.

Mr. Barkas is willing that palæontological students shall fully profit by the rich collection of fossil bones, teeth, and scales which he has obtained both by personal search and by judiciously directing the intelligent observation of working miners in the Newcastle coal-field. With this view he has had nearly 250 figures carefully lithographed, and some chromo-lithographed, of natural size and magnified, in the handsome Atlas of his 'Manual of Coal-measure Palæontology.' These figures comprise several reproduced from other works, for comparison and to make this illustrated series of vertebrate remains from the Northumberland Coal-measures as complete as present circumstances permit. The descriptive portion, evidently from the pen of an amateur, contains abundant references to other publications and frequent acknowledgment of fellow workers. Doubtless Mr. Barkas's good intention of stimulating further research in this highly interesting field of geology will not be fruitless; collectors will see at a glance the natural groups to which their specimens may be referred; and naturalists have here much material before them ready for critical examination, and will find in Mr. Barkas's descriptions many suggestive observations on specimens having doubtful characters.

1. *The Physical Geology and Geography of Great Britain.* By A. C. Ramsay, LL.D., F.R.S., &c. 3rd Edition. London: Stanford, 1872.

2. *The School Manual of Geology.* By J. B. Jukes, M.A., F.R.S., &c. Second Edition, revised and enlarged; edited by A. J. Jukes-Browne. Small 8vo. Edinburgh: Black, 1873.

These new editions are to be recommended; for the first is now a standard work on the physical geography of the British Isles and, correlatively, on the geological structure, not only of neighbouring lands, but of all parts of the world; for the same principles rule, and similar results are found, wherever the geologist betakes himself with educated eye and mature judgment. The bold treatment of physical features, on the large scale, by reference to ancient extensive planes of marine denudation and the subsequent long-continued excavation of all valleys by atmospheric, glacial, pluvial, and fluvial action, is a leading idea in Prof. Ramsay's masterly work, and has a powerful and wholesome influence in enlarging the mental views

of the geological student, and in enabling him to grasp the characters and meaning of all the geographical features met with in travel at home and abroad.

Jukes's 'School Manual' is much improved in this new edition, and is well calculated for beginners really intending to work at the science, and not merely amusing themselves with peeps into nature, empty admiration of physical novelties, and easy pursuit of sensational inquiries neither useful nor lasting.

Geological Stories. By J. E. Taylor, F.G.S. Small 8vo, pp. 301, with many Woodcuts. Hardwicke: London, 1873.

This is an elementary work, intended to lead amateurs to a knowledge of geology by "a series of autobiographies, in chronological order," supposed to be related by different constituent members of the several geological formations, as granite, quartz, slate, limestone, sandstone, coal, rock-salt, jet, Purbeck marble, chalk, clay, lignite, crag, boulder, and gravel. The attempt is praiseworthy, and, excepting in some details, is well carried out. The author should be more exact as to the characters of felspar, the structure of brachiopods, and other points in natural history, and more correct in his Latin words, in his next edition, if he wishes his well-intentioned and well-directed book to fulfil its purpose in advancing geological knowledge.

MISCELLANEOUS.

Note on the Scombrocottus salmoneus *of Peters, and its identity with* Anoplopoma fimbria. By Theodore Gill, M.D., Ph.D.

The distinguished zoologist of Berlin, Dr. Wilhelm Peters, has recently published a communication on a supposed new generic type of Cataphracti from Vancouver's Island, which he has named *Scombrocottus salmoneus*. This form was regarded as possessing the highest interest, on account of a combination of characters which allied it to the Scombroids, and thus corroborated Dr. Günther's views respecting the affinity between the Cataphracti and Scombroids of Cuvier.

It was at once apparent, after a perusal of the good description, that the supposed new type was identical with the form first discovered and named by Pallas *Gadus fimbria*, and subsequently, by Dr. Ayres, *Anoplopoma merlangus*. And it was with special interest that I also recalled the fact that both its former describers had failed to perceive any resemblance to the Scombroids (they equally failed, however, in detecting the relations to the Cataphracti), and both had believed they could perceive a resemblance to the Gadoids*;

* Dr. Ayres noticed the enlarged suborbitals, but referred the genus near to *Stizostedion* (*Lucioperca*, Cuv.).